

REMARKS

The Examiner has alleged that applicants' claimed limitation electrode (6, 14) disposed outside of at least one electrolysis region is a feature taught by Hartman et al. (US 5,425,862). In support, the Examiner has proffered that the Hartman electrode (9-14) is disposed outside of at least one electrolysis region 6 (Fig. 1).

Applicants' claims recite at least one feature which distinguishes over Hartman, that is, *"the electrolysis region is so short that the electrically conductive structures are in constant electrical contact with one of the contacting electrodes (6, 14)"*. In addition, *"the electrolysis region is chosen to be so short that the electrically conductive structures are in constant electrical contact with one of the contacting electrodes (6, 14) as they are being passed through the electrolysis region"* is neither shown nor suggested by Hartman.

These features of the present invention enable the isolated structures to be treated electrolytically because there is always an electric contact from one of the contacting electrodes to the structure in question (i.e., each of the isolated structures).

The present invention electrolytically treats electrically insulated structures on a substrate. This has been done in the past by simply maintaining, during the electrolytic treatment, that all structures on the substrate are actually, physically, connected together. Thus the electric current applied to one structure travels to all structures. This prior art method then requires that the individual structures be later separated, i.e., cut apart once the electrolytic treatment is completed. This prior art method is restricted to situations where a temporary interconnect of all structure is possible, and where later separation can be accomplished without altering the structures. Of particular importance is the existence of an exposed surface portion (non-electrolytically treated) where the later cutting apart occurs.

Moreover, this method is restricted to those situations cases where the layout on the semiconductor substrate makes a temporary connection of all structures possible, and separation practical. The method can be complicated and expensive.

Applicants' invention overcomes these shortcomings.

Moreover, in viewing Hartman, those skilled in the art would not have been motivated to electrolytically treat isolated structures on a semiconductor substrate as the apparatus disclosed by Hartman relates to electroplating thin films which are provided on one or both sides with a conductive coating, and therefore there would be no need to modify Hartman to create the present invention.

No additional fees are believed to be required. In the event that an additional fee is required with respect to this communication, the Commissioner is hereby authorized to charge any additional fees, or credit any overpayment, to Paul & Paul Deposit Account No. 16-0750.
(order no. 7358)

Respectfully submitted,
Paul & Paul

Date: May 15, 2009

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